REMARKS

In the Final Office Action, the Examiner objected to the specification because it contains embedded hyperlinks. The specification has been amended as indicated above. Applicant requests that the Examiner's objection to the specification be withdrawn.

Claims 1-11 and 13-28 are pending in the present application.

In the Office Action, claims 8-11 and 13-14 were rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Applicant proposes amending independent claim 8 to set forth "a computing apparatus." Applicant submits that the proposed amendment will place the application in better condition for allowance or appeal and requests that the proposed amendments be entered. Pursuant to the proposed amendments, Applicant respectfully submits that claims 8-11 and 13-14 are directed to statutory subject matter and requests that the Examiner's rejections of these claims under 35 U.S.C. § 101 be withdrawn.

In the Office Action, claims 8-11 and 13-14 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Applicant respectfully disagrees. The subject matter set forth in claims 8-11 and 13-14 is described at least in lines 12-21 on page 28 of the Patent Application. In particular, this section of the specification describes a task picker that may perform the operations set forth in claims 8-11 and 13-14. Applicant therefore submits that claims 8-11 and 13-14 comply with the written description requirement and requests that the Examiner's rejections of these claims under 35 U.S.C. § 112, first paragraph, be withdrawn.

In the Office Action, claims 1-11 and 13-28 were rejected under 35 U.S.C. § 102(a) as allegedly being anticipated by Shi, et al. (U.S. Patent No. 6,757,897). The Examiner's rejections are respectfully traversed.

Shi describes techniques that allow higher priority tasks to yield processing time to lower priority tasks. For example, a data transfer task 2.1 may perform its task for a first period of time and then provide a yield signal to a yielding scheduler 110. In response to receiving the yield signal, the yielding scheduler 110 temporarily disables performance of the data transfer task 2.1 by placing or moving the data transfer task 2.1 from a ready queue 113 to a yield queue 112. A task scheduling algorithm 114 then selects a task to perform on the processor 101 from the tasks that are available for performance as listed in the ready queue 113. See Shi, col. 14, line 34-col. 15, line 3 and Figure 2. After a second period of time has elapsed, the yielding scheduler 110 stops performance of the lower priority task and re-enables performance of the data transfer task 2.1, e.g., by moving the data transfer task 2.1 from the yield queue 112 back into the ready queue 113. See Shi, col. 15, line 58-col. 16, line 3 and Figure 2.

Independent claims 1 and 15 set forth storing one or more tasks in a queue. Each task has an associated exit routine. Applicant respectfully submits that Shi fails to teach or suggest an exit routine associated with the tasks stored in the queue. In the Final Office Action, the Examiner alleges that Shi inherently teaches an exit routine because the tasks may not execute at the end of a given time. Applicant respectfully disagrees and notes that inherency in anticipation requires that the asserted proposition *necessarily* flow from the disclosure. *In re Oelrich*, 212 U.S.P.Q. (BNA) 323, 326 (C.C.P.A. 1981); *Levy*, 17 U.S.P.Q.2d (BNA) at 1463-64; *Skinner*, at 1789; *In re King*, 231 U.S.P.Q. (BNA) 136, 138 (Fed. Cir. 1986). It is not enough that a reference could have, should have, or would have been used as the claimed invention. "The mere fact that a certain thing <u>may</u> result from a given set of circumstances is not sufficient." *Oelrich*, at 326, quoting *Hansgirg v. Kemmer*, 40 U.S.P.Q. (BNA) 665, 667 (C.C.P.A. 1939); *In re Rijckaert*, 28 U.S.P.Q.2d (BNA) 1955, 1957 (Fed. Cir. 1993), quoting *Oelrich*, at 326; *see also Skinner*, at

1789. "Inherency... may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Ex parte Skinner*, 2 U.S.P.Q.2d (BNA) 1788, 1789 (Bd. Pat. App. & Int. 1987), citing *In re Oelrich*, 666 F.2d 578, 581 (C.C.P.A. 1981).

Applicant respectfully submits that Shi does not inherently describe an exit routine. Shi states that tasks may be enabled or disabled by moving them between the ready queue 113 and the yield queue 112. However, Shi does not teach that these tasks must be exited in order to be moved between the yield queue 112 and the ready queue 113. To the contrary, Shi states that the yielding scheduler 110 only temporarily disables performance of the data transfer task 2.1 for a selected period before re-enabling performance of this task, as discussed above. Applicant respectfully submits that tasks may be disabled without being exited. For example, a task may be disabled by placing the task an idle mode during which no processor cycles are used to perform the task even though the task has not been exited. Thus, the tasks described by Shi are not _necessarily_ exited when they are moved between the yield queue 112 and the ready queue 113.

Claims 1 and 15 also set forth determining at least one task to process based on a priority scheme, processing the at least one task, and calling the exit routine <u>based on determining that the task has not completed processing within a preselected period of time</u>. Applicant respectfully submit that Shi does not describe or suggest calling an exit routine based on determining that a task has not completed processing within a preselected period of time. As discussed above, Shi does not teach or suggest (either explicitly or inherently) calling an exit routine, but rather describes temporarily disabling tasks. Furthermore, the tasks described in Shi are not temporarily disabled based on a failure to complete within a preselected period of time. To the

contrary, the tasks described in Shi may be temporarily disabled based upon a yield interrupt that may be provided in response to expiration of a timer. Applicant submits that providing the yield interrupt in response to expiration of the timer is a part of the normal operation of the tasks and does not represent a failure of the task to complete. Thus, Shi fails to teach or suggest calling an exit routine based on determining that the task has not completed processing within a preselected period of time.

Independent claims 8 and 22 set forth, among other things, a task picker stored in a queue that is also used to store other tasks. Applicant respectfully submits that Shi does not describe or suggest storing a task picker in the queue. To the contrary, Shi teaches that the yielding scheduler 110 is a separate entity that may be used to control both the yield queue 112 and the ready queue 113. The yielding scheduler 110 is not stored in either of these two queues. See Shi, Figure 2. In the Final Office Action, the Examiner alleges that the primary task 2.1 is a task picker that is stored in the yield queue 112 and/or the ready queue 113. Applicant respectfully disagrees and notes that Shi teaches that the primary task 2.1 may provide a yield signal, but the task scheduling algorithm of 114 selects tasks to perform on the processor 101, as discussed above. Thus, Shi does not teach that the primary task 2.1 is a task picker, contrary to the Examiner's allegations.

Independent claim 8 also sets forth executing the task picker until a preselected event occurs. Applicant respectfully submits that Shi does not teach or suggest interrupting or modifying operation of the yielding scheduler 110 under any circumstances. Accordingly, Applicant respectfully submits that Shi does not teach or suggest executing the task picker until a preselected event occurs.

Independent claim 22 also sets forth a controller configured to determine if the task completes execution within the preselected time interval, terminate the task in response to determining that the task failed to complete within the preselected time interval, and execute the task picker in response to terminating the task. As discussed above, Shi does not describe or suggest determining if a task completes execution within a preselected time interval or terminating the task in response to determining that the task failed to complete. To the contrary, the tasks described in Shi may be temporarily disabled based upon a yield interrupt that may be provided in response to expiration of the timer. Providing the yield interrupt in response to expiration of the timer is a part of the normal operation of the tasks described by Shi and does not represent a failure of the task to complete.

For at least the aforementioned reasons, Applicant respectfully submits that claims 1-11 and 13-28 are not anticipated by Shi and request that the Examiner's rejections of these claims under 35 U.S.C. § 102(a) be withdrawn.

For the aforementioned reasons, it is respectfully submitted that all claims pending in the present application are in condition for allowance. The Examiner is invited to contact the undersigned at (713) 934-4052 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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//Mark W. Sincell//
Mark W. Sincell, Ph.D.
Reg. No. 52,226
Williams Morgan & Amerson, P.C.
10333 Richmond Avenue, Suite 1100
Houston, TX 77042
(713) 934-7000

(713) 934-7011 (Fax)
AGENT FOR APPLICANTS